AMENDMENT UNDER 37 C.F.R. § 1.111
US Application No. 09/762,945
Attorney Docket No. Q80251

IN THE CLAIMS.

1. (Currently Amended) A method of analysis of a printed circuit board comprising:
generating ~~an~~ a pixelated image of the printed circuit board, said printed circuit board comprising a laminate and a plurality of metal conductors; and
determining the presence of an oxide on a metal conductor from an analysis of the image.

2. (Original) A method according to claim 1 wherein determination of the presence of an oxide is made without determining whether the pixel is a laminate pixel.

3. (Previously Presented) A method according to claim 1 wherein generating an image comprises generating a pixelated image having brightness values for each pixel and wherein determining the presence of the of an oxide comprises determining the presence of the oxide responsive to the brightness values.

4. (Previously Presented) A method according to claim 1 wherein generating an image comprises generating a plurality of images each at a different color and having brightness values for each pixel in each image and wherein determining the presence of an oxide includes making the determination based on an analysis of the pixel values in at least two of the images.

5. (Original) A method according to claim 4 wherein the plurality of images comprises a red, a green and a blue image.

6. (Previously Presented) A method according to claim 4 wherein determination of the presence of an oxide includes eliminating pixels from consideration based on a brightness value for a single color.

7. (Currently Amended) A method according to claim 6 wherein the single color is red and wherein pixels having a red brightness level below a given value are eliminated from consideration as being an oxide.

8. (Currently Amended) A method according to claim 6 wherein the single color is red and wherein pixels having a red value above a given value are eliminated from consideration as being an oxide.

9. (Previously Presented) A method according to claim 6 wherein determination of the presence of an oxide includes eliminating pixels from consideration based on a comparison between the brightness level of two colors.

10. (Original) A method according to claim 9 wherein the two colors are red and green and wherein the pixel is eliminated if its red brightness value compared to that of copper is less than its green brightness value compared to copper.

11. (Previously Presented) A method according to claim 9 wherein the two colors are red and blue and wherein the pixel is eliminated if its red brightness value compared to that of copper is less than its blue brightness value compared to copper.

12. (Previously Presented) A method according to claim 6 wherein determination of the presence of an oxide includes eliminating pixels from consideration based on an analysis of the brightness levels of three colors.

13. (Previously Presented) A method according to claim 6 wherein determination of the presence of an oxide includes eliminating pixels from consideration based on a comparison between the brightness level of three colors with brightness levels for copper.

14. (Original) A method according to claim 13 wherein a pixel is eliminated from consideration as an oxide when its color brightness values have a Mahalanobis distance greater than a given value from the mean values of the brightness values for copper.

15. (Original) A method according to claim 14 wherein the given value for the Mahalanobis distance is between 4 and 8.

16. (Original) A method according to claim 14 wherein the given value for the Mahalanobis distance is about 6.

17. (Previously Presented) A method according to claim 2 wherein the determination of the presence of an oxide is made based on a relationship between the brightness values of the image and brightness values characteristic of copper.

18. (Previously Presented) A method according to claim 4 and comprising:
determining a color gamut characteristic of the oxide; and
comparing the color values of a pixel to the determined gamut of values to determine if the pixel is an oxide.

Claims 19 - 22. (Canceled)

23. (Previously Presented) A method according to claim 12 and comprising:
determining a color gamut characteristic of an oxide; and
comparing the color values of a pixel to the determined gamut to determine if the pixel is an oxide.